

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Serial No.: 10/628,651  
Filed: July 28, 2003  
Group Art Unit: 1742  
Examiner: Sikyin Ip  
Applicant: Joseph W. Harris  
Title: PHOSPHORUS-COPPER BASE BRAZING ALLOY  
Attorney Docket: JWH-59US  
Confirmation No.: 4424

**FOURTH AFFIDAVIT OF ROBERT HENSON UNDER 37 C.F.R. § 1.132, ¶1**

My name is Robert Henson. My position and credentials have been previously set forth in the record for this application.

I have reviewed my previous affidavit in view of the Examiner's statement on page 8 of the Office Action dated May 18, 2006. In retrospect, it does appear that my previous statement was not entirely accurate, but rather was an oversimplification. In the previous statement, submitted August 18, 2005 and entitled "FIRST AFFIDAVIT OF ROBERT HENSON UNDER 37 C.F.R. § 1.132, ¶1", I asserted the following:

*A) Alloys B through H-2 all fall within the broad range disclosed in the second sentence of the Polish Abstract, mainly with the phosphorus and tin contents varied from that of Alloy A, but each falls outside the claimed ranges in the present application.*

*B) Alloys I-K fall within the broad range disclosed in the second sentence of the Polish Abstract, and fall within the claimed ranges in the present application.*

With respect to assertion A, the statement is true except with respect to Alloys C-2, D-2 and H-2, which do not fall within the scope of the Polish Abstract. Alloys C-1, D-1 and H-1 do fall within the scope, and C-2, D-2 and H-2 are identical, respectively, with the exception of the omission of Ag. Upon review, I see that this omission causes Alloys C-2, D-2 and H-2 to fall outside the scope of the Polish Abstract. However, Alloys C-2, D-2 and H-2 compared to Alloys C-1, D-1 and H-1 were simply intended to show the effect of eliminating silver.

With respect to assertion B, the statement was true in part, but in retrospect, I see that I did not include two necessary clarifications. It was my intent to state that Alloys I-K fall within the broad range disclosed in the second sentence of the Polish Abstract, and fall within the claimed ranges in the independent claims of the present application with respect to the P, Si, and Sn contents. Alloys I-K were investigated with the intent to show the relationship, and indeed the criticality, of the P and Sn ranges. Further, Alloys I-K do not fall within the scope of each and every claim in the present invention. However, Alloys I-K do fall within the scope of at least one rejected claim, namely at least claims 35 and 39.

Declarant did not intend to deceive by these misstatements, but rather made an oversimplification when reviewing and attempting to explain a large amount of evidence. Thus, the present statement is meant to clarify Applicants intent and to correct the record.

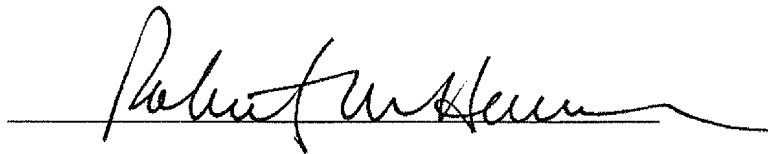
With respect to the Examiner's comment regarding Alloy F, the present application sets forth various interactions between the elements in the alloy, such that the level of inclusion of one element takes into account the level of inclusion of the other elements. For example, in claim 1, up to 10% tin may be used. However, if antimony is also used, up to a level of about 4%, then the tin content may have to be decreased based on the antimony level. This relationship is set forth in the present application, and is addressed in the evidence of record. Thus, it is possible for various combinations of elements to fall within the literal scope of a claim, yet be inoperable or non-ideal. It is my understanding that not all possible embodiments of a claim must be operable so long as one skilled in the art can to determine whether an embodiment is operable or not in view of the specification. With respect to Alloy F, while it technically falls within the scope of claim 1, the instant application teaches that the combination of tin and antimony should be no greater than 10%. Alloy F has a combined tin and antimony content of 11, such that one skilled in the art can conclude that Alloy F should not be used in accordance with the teachings of instant application.

Further declarant sayeth naught.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so

made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

IN WITNESS WHEREOF, I hereto set my hand and seal at Warren County, Ohio, this 19 day of July, 2006.



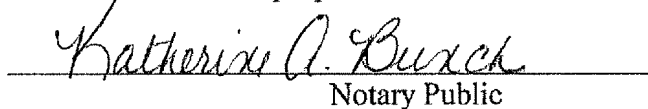
Robert Henson

STATE OF OHIO:

:ss.

COUNTY OF WARREN;

Before me this 19<sup>th</sup> day of July, 2006, personally appeared Robert Henson, known to me to be the person whose name is subscribed to the foregoing and acknowledged that he executed the same as his free act and deed for the purposes therein contained.



Notary Public

My Commission Expires:

**KATHERINE A. BUNCH**  
Notary Public, State of Ohio  
My Commission Expires Apr 30 2011

[Notary's Seal Here]